Ownership matrix

1.0 PURPOSE AND SCOPE

This guidance document describes the process used to ensure the structural integrity of lifting points. A lifting point is any lifting bail, lifting eye, or other permanently mounted apparatus for lifting. This guidance document also details the responsibilities of and steps to be taken by the engineers involved in this process (see TFC-ENG-FACSUP-C-25).

2.0 IMPLEMENTATION

This guidance document is effective on the date shown in the header.

3.0 RESPONSIBILITIES

Responsibilities are contained within Section 4.0.

4.0 GUIDANCE

4.1 Inspection Preparation

System or Component Engineer

1. Based on a scheduled need to perform a lift, check the IDMS Lifting Point database for existing calculations and field inspections; provide supporting documentation to planner as needed.

2. Initiate, as required, a request for a Quality Assurance (QA) inspection of the lifting points (A-6003-765) or perform an inspection using A-9003-764.

   NOTE 1: QA inspection is not necessary when the lifting point is in the Lifting Point database. However, QA inspection is required when the lifting point is damaged or visibly bent. If the lifting point is not in the Lifting Point database, the system or component engineer shall fill out the Lifting Point Field Report by Engineers (A-6003-764), photograph the specific lifting point, and go to Section 4.2. If the system or component engineer does not perform the inspection, then have a QA inspection performed (A-6003-765).

   NOTE 2: For newly installed or manufactured lifting points (less than 12 months old) where: (1) calculations meet or exceed the analysis criteria in RPP-8360, showing adequate strength of the lifting points and/or load testing results demonstrate strength in excess of 125% of the load for each lift point; and (2) a QA receipt inspection has been performed, the field inspection requirements of this procedure do not apply, and the receipt inspection documentation for the system, structure, or component is substituted for a field inspection per TFC-ENG-FACSUP-C-25. Regardless, Section 4.2 of this procedure shall apply, and photographs are taken and included as input.

3. Review the field inspection folder for completeness and accuracy, provide signature approval on A-6003-766 in Appendix A, and deliver the package to QA.

4.2 Field Inspection

System or Component Engineer

1. Evaluate the field inspection report, and based on findings, perform the required actions to ensure that the identified lifting points can be safely used.

   a. Initiate a work order for any lifting points requiring corrective maintenance; include appropriate provisions of TFC-ENG-FACSUP-C-23.

   b. Indicate approval by signing the inspection report(s).

2. If required, prepare an ECN to initiate repairs or to revise drawing(s) to match the "as-found" field conditions in accordance with TFC-ENG-DESIGN-C-06.

Rigging Engineer

3. Evaluate corrective actions and approve ECNs.

   NOTE: Modifications, repairs, or replacements of lifting points are made in accordance with TFC-OPS-MAINT-C-01. Engineering document changes are made in accordance with TFC-ENG-DESIGN-C-06.

4. When frequent lifts are taking place, it is recommended to track hoisting and rigging activities: coordinate calculations, inspection of critical and special lifts required using the Lifting Point Evaluation Tracking List (see Figure 1 for an example of the tracking list).

4.3 Structural Analysis

System or Component Engineer

1. Perform structural analysis and provide data to planner; engage the services of a structural engineer as necessary.

2. Check the IDMS Lifting Point database and RPP-16330 to determine bail capacity and cover block weight. If necessary, initiate an analysis by contacting the Engineering Discipline Lead - Civil/Structural, and provide an approved inspection report to the analyst.

Engineering Discipline Lead - Civil/Structural Discipline

3. Determine the type of calculation required in accordance with TFC-ENG-DESIGN-C-10. A letter of appointment may be issued to identify approved alternates for this determination.

Analyst

4. Perform structural evaluation of lifting points in accordance with TFC-ENG-DESIGN-C-10 and RPP-8360.

System or Component Engineer	5.	Based on the structural evaluation, determine if the lifting point(s) is adequate to lift the intended item (e.g., cover block, cover plate, shield plug) and verify tags are in place as applicable (see Section 4.4, step 16). a. If adequate, notify the planner and provide the planner with a copy of the analytical calculations. b. If inadequate, contact the Engineering Discipline Lead - Civil/ Structural, for a resolution (RPP-9514).
Analyst	6.	Record analysis as required by TFC-ENG-DESIGN-C-10. Document computational calculations on A-6003-884, item 9.
	7.	Record inspection report results and analysis into the Integrated Data Management System (IDMS) Lifting Point database or IDMS per TFC-ENG-DESIGN-D-27.

5.0 RECORDS

No records are generated in the performance of this guidance document.

6.0 REFERENCES

1. RPP-8360, “Lifting Bail Evaluation Process.”
2. RPP-9514, “Bail Repair and Load Testing.”
3. TFC-ENG-DESIGN-C-10, “Engineering Calculations.”
4. TFC-ENG-DESIGN-D-27, “Electronic Information Files.”
5. TFC-ENG-FACSUP-C-25, “ Hoisting and Rigging.”

Figure 1. Lifting Point Evaluation Tracking List

Item No.	Priority	Lifting Wk Order No.	Location (DSTs)	Critical/Special/ Normal	Lift Description/ Location	Project Need Date	Project	Planner/ System Engr	Rigging Engr/ Scheduler	Field Pkg Prep for QC Insp (Planner)		Sys Eng/QC Inspection		Inspec. Review of QC Inspection (Fac. Sys. Engr.)		Engineering Evaluation		Review of Engineering Eval (Engineering Discipline Lead - Civil/Structural)		Critical Lift Plan-Special Lift (Brewer)		Comments (Issues, ECN #, etc.)
		Shading indicates eval & CLP complete and Wk Pkg is RTW								IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	